Real-World Sanitary Survey Results and Correction of On-Site Problems in Two Important Shellfish Growing Areas in Mason County, Washington

Will Satak
Mason County Enviromental Health

Abstract

Mason County boasts a large number of commercial marine shellfish waters that support the economy of this area. Some years back these shorelines were slowly being closed, one after another, due to unsanitary waters. The suspicion was that domestic septic systems were the largest cause of the marine water degradation. The Lower Hood Canal (LHC) and Totten Little Skookum (TLS) sanitary surveys were the two largest surveys ever undertaken by Mason County to combat the problem. During this work, a wealth of knowledge was gained about what compels people to participate, the real costs involved, and the effectiveness of the surveys.

The Lower Hood Canal Survey was undertaken in 1994. The survey funding came from the LHC Clean Water District assessments created due to the closure of shellfish and other recreation beaches. A staff of six worked for three years on this project. Five thousand surveys later, we had identified 500 septic failures. The causes of the failures varied from items as simple as crushed transport pipes and dilapidated tanks to the need for costly full-system replacements. Once the septics systems were repaired, a marked change in water quality occurred, allowing many of the shoreline areas to be reopened.

The Totten Little Skookum sanitary survey was a preemptive strike by the shellfish growers, clean water district, and health department to ensure that the septic systems in that area would not be a cause of non-point pollution. The survey was co-funded by a grant and the Totten Little Skookum clean water district assessments. The survey lasted from 1993 to 1995.

Suitability of Surrogate Species to Estimate Human Health Risk Due to the Consumption of Nontraditional Marine Resources

Ruth A. Thompson and Burt Shephard
URS Greiner, Inc.

Abstract

The evaluation of potential risks to humans from consumption of contaminated nontraditional marine invertebrate species is complicated by the lack of information on the ability of these species to bioaccumulate contaminants and by the lack of knowledge of population consumption patterns. While traditional species are commonly used as indicators to be surrogates for the nontraditional species, the accuracy of such extrapolations is largely unknown. The sea cucumber is a nontraditional species consumed primarily by Asian and native populations in the Pacific Northwest. This paper evaluates the suitability of two traditional species, clams and crabs, as surrogates of risk incurred by the consumption of sea cucumbers harvested from Ostrich Bay and Sinclair Inlet in Puget Sound. It also examines the ability of sea cucumbers to bioaccumulate chemicals, and it evaluates local consumption patterns.